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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,594	08/27/2001	Satoshi Serizawa	110052	2724
25944	7590	11/22/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			DOUGHERTY, THOMAS M	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,594

Applicant(s)

SERIZAWA, SATOSHI

Examiner

Thomas M. Dougherty

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1002,103.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 4-7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/19/04.

The restriction is maintained for the reason cited in the election/restriction requirement.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwao (JP 62-207008) in view of Kizaki et al. (US 5,841,217). Iwao shows (figs. 1a, 1b, 2) a piezoelectric device having a structure in which a piezoelectric resonator element (5) is bonded to electrodes (2) provided on a package base (1), comprising: conductive adhesives (4), mounting electrodes (8) provided on the package base, to which a driving voltage is carried via conduction paths (between 2 and 8), and on which the piezoelectric resonator element (5) is mounted, the mounting electrodes (8) defining surfaces; and conductive anchor members (7) which are disposed on the surfaces of the mounting electrodes (8) and which are formed of a material having high adhesion to

Art Unit: 2834

the surfaces of the mounting electrodes (8), the piezoelectric resonator element (5) being bonded to the conductive anchor members (7) with the conductive adhesives (4) provided therebetween.

The conductive anchor members (7) including a conductive adhesive formed of a rigid resin, as shown. Note that the claimed description in this instance is a relative description.

Iwao does not explicitly note that his conductive adhesive is a silicone-based conductive adhesive.

Kizaki et al. show (fig. 2) a piezoelectric device having a structure in which a piezoelectric resonator element (9) is bonded to electrodes comprising: silicone-based conductive adhesives (5), mounting electrodes (4) provided on the package base, to which a driving voltage is carried via conduction paths (inherent or no voltage can be supplied), and on which the piezoelectric resonator element (9) is mounted, the mounting electrodes (4) defining surfaces; the piezoelectric resonator element (5) being bonded to the conductive anchor members (7) with the conductive adhesives (4) provided therebetween.

Kizaki et al. don't show an anchor component on their mounting electrodes. It is not known that the conductive anchor members include at least one of an epoxy-based and a polyimide-based conductive adhesive.

It would have been obvious to one having ordinary skill in the art to employ a silicone-based conductive adhesive for the conductive adhesive employed by Iwao, which is an un-named material since this is an adhesive that provides for shock

Art Unit: 2834

resistance as Kizaki et al. note for example at col. 4, lines 7-9, and which shock resistance is also noted by Iwao a purpose of his invention. Regarding the type of adhesive used for the anchor members, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ either an epoxy-based or a polyimide-based conductive adhesive for the anchor member, if in fact one of these are not employed, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other prior art relevant to the applicants' claims is that of Tanaka et al. (US 6,531,807). Tanaka et al. show the claimed components in sequence without noting the type of conductive adhesive employed. However, Tanaka et al. do not have a filing date which renders their patent applicable.

Direct inquiry to Examiner Dougherty at (571) 272-2022.

tmd
tmd

November 10, 2004

Thomas M. Dougherty
THOMAS M. DOUGHERTY
PRIMARY EXAMINER
GROUP 2808